

AMENDMENTS TO THE CLAIMS

The listing of the claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Currently Amendment) A frequency conversion apparatus comprising:
a high-frequency amplifier for amplifying an input high-frequency signal;
a mixer for mixing ~~an~~ the amplified high frequency output signal of ~~applied~~
through a variable filter, the high-frequency amplifier with a local oscillation signal;
a filter for restricting a band of an output signal of the mixer to permit passage of
only components within a predetermined band; and
a said variable filter ~~that is~~ provided between the high-frequency amplifier and the
mixer, having and of which a cut-off frequency that is controllable,
wherein the high frequency amplifier shuts off reflected waves outside a pass
band of the variable filter, and
wherein the cut-off frequency of the variable filter is so controlled as to vary with
a reception channel signal.

2. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the variable filter is a variable low-pass filter that selectively permits
passage of only low-band components of the input signal.

3. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the variable filter is a variable band-pass filter that selectively permits passage of only components of the input signal within a predetermined band.
4. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the variable filter is composed of a variable low-pass filter and a variable high-pass filter connected in series, the variable low-pass filter selectively permitting passage of only low-band components of the input signal and the variable high-pass filter selectively permitting passage of only high-band components of the input signal.
5. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the variable filter is a variable high-pass filter that selectively permits passage of only high-band components of the input signal.
6. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillation signal.
7. (Original) A frequency conversion apparatus as claimed in claim 1,
wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.

8. (New) A method of reducing unwanted signals in a frequency conversion apparatus comprising:

- amplifying an input high-frequency signal with a high frequency amplifier;
- mixing the amplified high frequency signal applied through a variable filter, and a local oscillation signal with a mixer;
- restricting a band of an output signal of the mixer, to permit passage of only components within a predetermined band; and
- controlling a cut-off frequency of the variable filter provided between the high frequency amplifier and the mixer, so as to vary the cut-off frequency with a reception channel signal,

wherein the high frequency amplifier shuts off reflected waves outside a pass band of the variable filter.

9. (New) The method as claimed in claim 8,

wherein the variable filter is a variable low-pass filter that selectively permits passage of only low-band components of the input signal.

10. (New) The method as claimed in claim 8,

wherein the variable filter is a variable band-pass filter that selectively permits passage of only components of the input signal within a predetermined band.

11. (New) The method as claimed in claim 8,

wherein the variable filter is composed of a variable low-pass filter and a variable high-pass filter connected in series, the variable low-pass filter selectively permitting passage of only low-band components of the input signal and the variable high-pass filter selectively permitting passage of only high-band components of the input signal.

12. (New) The method as claimed in claim 8,

wherein the variable filter is a variable high-pass filter that selectively permits passage of only high-band components of the input signal.

13. (New) The method as claimed in claim 8,

wherein the cut-off frequency of the variable filter is controlled by use of a phase-locked loop circuit that controls a frequency of the local oscillation signal.

14. (New) The method as claimed in claim 8,

wherein the cut-off frequency of the variable filter is controlled by a voltage synthesizing method.